Soil Conservation Is an Old-Time Religion

Douglas Helms,
historian, Soil Conservation Service

A Tennessee hillside, too steep for row crops, is seeded to tall fescue grass in contour rows. (H.C. Green, SCS, TENN-D67-1)

The idea that Americans should conserve soil to maintain the Nation's capacity to produce food is neither new nor outdated. Some colonial Americans knew the dangers of exhausting the land and undertook conservation measures even then. Some of the earliest conservationists increased fertility and lessened erosion by maintaining ground cover, improving soil tilth, and instituting pasture, legume, and crop rotation systems.

Though he invented neither, Thomas Mann Randolph, Thomas Jefferson's son-in-law, quickly perceived the advantages of the hillside plow and horizontal, or contour, plowing. As a convert to the idea, Jefferson believed that "In point of beauty nothing can exceed that of the waving lines and rows winding along the face of the hills and valleys."

Nicholas Sorsby combined horizontal farming with the early progenitor

Hugh Hammond Bennett, first chief of the Soil Conservation Service, loved to carry the message of soil conservation to rural America. Here, he speaks on a Kentucky farm in 1948. (Soil Conservation Society of America)

A Civilian Conservation Corps enrollee sets out pine seedlings in South Carolina in 1941, helping reforest land not suited to cropland. (SCS, SC-10,392)

of the terrace—the hillside ditch—and greatly popularized "level culture" throughout the South.

The most outstanding of the pre-Civil War agricultural reformers, Edmund Ruffin, experimented to learn the effects of green manures and liming on soil conservation and soil fertility. After the Civil War, Priestly Mangum of Wake Forest, North Carolina, perfected the broadbased Mangum terrace for managing surface runoff.

Few agriculturalists viewed soil conservation as vital in the public agricultural institutions created in the latter half of the 19th century. These were the U.S. Department of Agriculture (USDA), the land-grant colleges, and the State agricultural experiment stations. USDA and the State experiment stations and Extension Services did publish bulletins on the subject. Eventually, two State experiment stations, those at Columbia, Missouri and Spur, Texas, concentrated on soil erosion.

Hugh Hammond Bennett, who led the soil conservation movement in the 20th century, first called for research. Largely at his prodding, the USDA appropriation act for 1929 included provisions for soil erosion and moisture conservation research stations. Bennett's first assistant at the Soil Erosion Service, Walter Lowdermilk, made seminal discoveries in the relationship of forest litter to runoff.

Education

When Hugh Hammond Bennett began his crusade for soil conservation as a soil scientist in the USDA, he proposed to use demonstration methods so that farmers would observe proven methods of soil conservation, then go forth and do likewise. He located the earliest demonstration projects near the erosion and moisture conservation experiment stations, where the results of the research could be put to use.

The Soil Conservation Act of 1935 enabled Assistant Secretary of Agriculture Milburn L. Wilson to make conservation expertise more readily available to farmers through soil conservation districts. This provided for local participation in planning operations and attracted political support from farmers. On February 27, 1937, President Franklin D. Roosevelt transmitted the "Standard State Conservation Districts Law" to the governors. Each State then enabled local people to organize districts and elect supervisors. The districts then signed agreements with USDA.

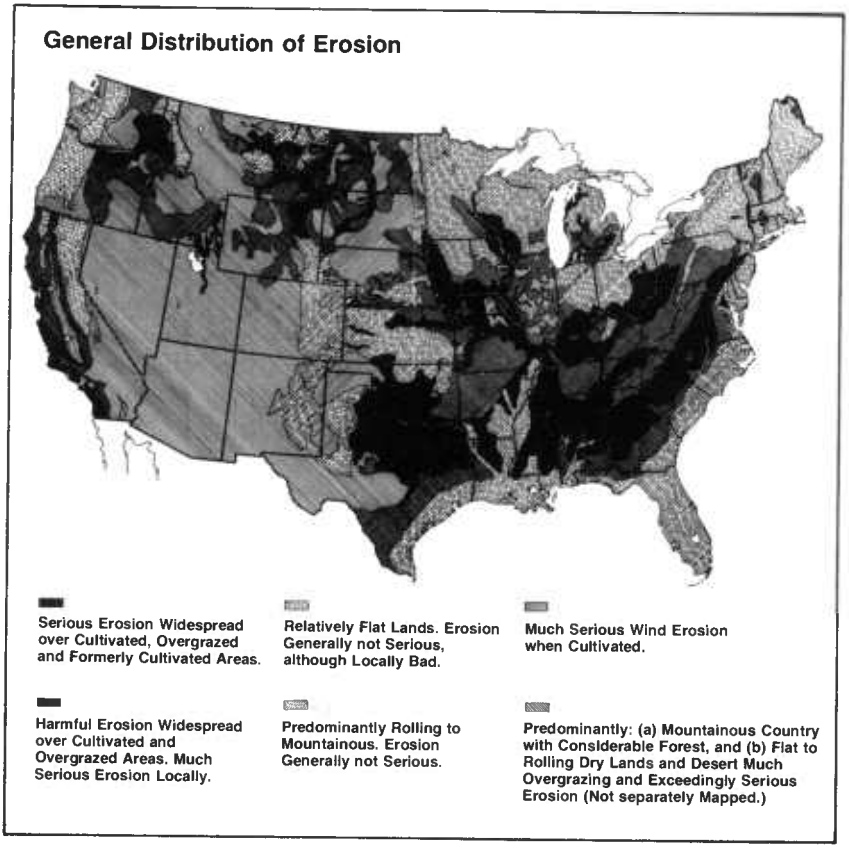
Trained USDA soil conservationists work directly with farmers in the nearly 3,000 conservation districts. The districts or States sometimes provide additional personnel.

Sharing the Costs

Sharing the cost of conservation became a major part of agricultural programs with the passage of the Soil Conservation and Domestic Allotment Act in 1936. Spending public money on soil conservation is premised on society's having an interest in preventing erosion. It is viewed not only as a matter of equity, but also as an inducement for farmers to practice

A system of terraces and stripcropping, in which alternate bands of close growing and clean tilled crops were planted on the contour, reduced erosion on this Pennsylvania farm. (Lowary, SCS, PA-40592-B)

An Arkansas farmer, using mules and a fresno, constructs a terrace to channel rainfall off his cropland. (SCS, ARK-D5-2G)



conservation. In early demonstration projects, SCS provided Civilian Conservation Corps enrollees or Work Projects Administration laborers. Additionally, SCS provided seed, seedlings, lime, and fertilizer to help farmers to establish pastures, restore gullied areas, and work hay crops into crop rotations, and helped to build terraces and fencing, and improve woodland.

Land Use Conversion Programs

Converting very erodible cropland to forests or grasslands has had a great appeal to people concerned about soil erosion. Frequently called "land retirement" programs, these programs generally had as a goal not retirement, but conversion of land to another use. Congress and USDA often had objectives in addition to soil conservation when instituting such programs.

The current cropland reduction effort, the Conservation Reserve Program authorized by the 1985 farm bill, limits the program to "highly erodible" land. Crop surpluses again gave impetus to paying farmers to

convert cropland to other uses. But other forces caused eligibility to be limited to erosion-prone land. Understanding of the erosion processes has increased, enabling conservationists to estimate sensitivity to erosion damage, and progress in making soil surveys made it possible to identify highly erodible land. Then too, a coalition of environmental groups influenced Congress to restrict the conservation reserve to the most erodible land. In addition to their long-standing emphasis on wetlands, wildlife interests now focus on cropland conversion as a means of increasing the variety and distribution of upland wildlife.

Profitability

The profitability of conserving topsoil appeared to be a much simpler question before benefits of scientific agriculture became available. Effective use of fertilizers clouds the perception that expenditures for conservation will be captured in the farmer's lifetime.

Costs of erosion are not limited to the lost productivity; costs away from the field, or offsite, also should be counted. Sedimentation specialists in the 1930's studied siltation reservoirs in order to understand erosional processes; their studies also illuminated the offsite costs.

Stewardship

According to some sources, Patrick Henry proclaimed shortly after the American Revolution, "since the achievement of our independence, he is the greatest patriot who stops the most gullies." The sentiment that conservation should be viewed not only as a matter of self-interest, but as an obligation, had, and continues to have many forms of expression. Certainly, a dispassionate case can be made for soil conservation, but like many another movement that came to be enacted into a national program by Congress, it involved emotions.

Soil conservation as a religious duty found expression in "Soil Stewardship Week." *Farm and Ranch* magazine sponsored a "Soil and Soul Sunday" from 1946 until 1954. The National Association of Conservation Districts assumed responsibility in 1955 and elicits support from many denominations.

An Enduring Agriculture

When a national soil conservation program began in the 1930's, the young group of conservationists attacked their job with enthusiasm. Being optimists, and no better seers than we are today, they perhaps were unmindful of how a dynamic agriculture could undermine some of their good works. But they did establish an objective by which to judge various conservation methods—an enduring agriculture. Enduring did not imply a static agriculture, but it held that the means to sustain agriculture, the physical integrity of the soil resource, must be maintained.